## Chapter 11: Capital Investments (Safety and Environment)

### Relationship of Capital Assets to Safety and the Environment

The CARES process recognizes that the management of VHA's capital assets must be coordinated with respect to the functionality of the space, occupational safety and health, fire safety, seismic considerations, and other building and equipment design criteria which affect safety codes and standards. This chapter of the CARES Plan addresses these issues as well as the general area of capital investment.

### Process of Developing Market Plans

The VISN market planning process was largely determined by the web-based computer application developed by IBM called the IBM Market Planning Template[1]. Appendix K outlines the assumptions and limitations of the IBM Market Planning Template used to develop capital investment plans. The template required the following steps:

1. Allocate the projected workload demand at the market level to VISN facilities for each CARES Category.

2. Manage projected workload demand by determining how much workload would be managed in-house or through community contracts, joint ventures, sharing, or a combination of any of these choices. The amount of workload managed in-house determined how much space was needed at a treating facility for a particular CARES Category.

3. Manage projected space needs at each treating facility for each CARES Category through new construction, converting vacant space, leasing space in the community, or through an enhanced use initiative or donated space. The projected space required at a treating facility to meet the in-house workload demand was determined using a square foot/workload unit (space driver) unique to each facility and based on optimum space (Appendix O). The projected space was compared to current space available at a facility in that CARES Category, and a 'space needed' or 'space overage' amount was calculated. The IBM Market Planning Template allowed a VISN to find a space solution within 25% of the projected space need, allowing some flexibility in addressing local efficiencies, such as the use of longer hours or more staff. In some cases, this 25% was not sufficient, but the template would not allow less than 75% of the space need to be met.

### Capital Plans

A Capital Plan will be developed during the implementation phase of CARES. The Capital Plans will cover a five to ten year time period rather than the 20-year planning horizon used for VISN Market Plans. A shorter time frame for capital planning is necessary in order to keep current with changing technology and health care delivery systems. The 20-year workload projections will be used to validate the need for the projects over the expected 20-year life of the investment.

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[1] IBM Market Planning Template Technical Summary is included under References

## Improving Safety and Functionality of Existing Space

Maintain Appropriate Tertiary Care Environment

As VHA increases access to both outpatient and inpatient health care services, one of the primary missions of the CARES planning process is to ensure that a safe and appropriate infrastructure is sustained at VA's tertiary care facilities. The National CARES Plan proposes capital investments in the seven core CARES categories (inpatient medicine, surgery, psychiatry and outpatient primary care, mental health, specialty, ancillary/diagnostic) of $1.7 billion dollars to support VHA tertiary care facilities. This is a sub-set of the $2.6 billion dollars proposed for capital investments in those seven clinical CARES categories for all facilities combined.

Safety and Functionality of Existing Space

By projecting veteran workload needs for the next twenty years, CARES was able to determine what existing infrastructure will be needed through the year 2022, assess the condition of that infrastructure, and plan to bring it to acceptable industry standards. The current condition of VHA's physical environment was measured through a facility survey process that resulted in an overall Condition Score for all existing space (Appendix O). Elements that were scored and weighted to make up the Condition Score for space in each CARES Category at each VHA facility included layout, code compliance, handicap accessibility and patient privacy. Space in each CARES Category at each facility was scored on a range of 1 to 5 with 5 being the best. Space with a Condition Score of less than 3 was considered for renovation to a score of 5. The following table shows the impact of these planned improvements.

**Table 11.1 Renovation and Improvements to Existing Space FY 2002 – FY 2022**

| Type of Investment | Total Space | Prior Weighted Condition Score of Space | Total Cost (Current $'s) | Revised Condition Score of Space |
|---|---|---|---|---|
| Convert Vacant | 3,779,421 | 2.40 | $402,859,514 | 5.00 |
| Renovate Existing | 7,981,188 | 3.41 | $603,040,996 | 5.00 |
| National Totals | 11,760,609 | 3.09 | $1,005,900,510 | 5.00 |

*Data and Report Last Updated: 6/26/03*

NOTE: Table 11.1 includes all CARES categories except Research and Other Space. It includes the seven, core inpatient and outpatient clinical categories as well as Nursing Home/Intermediate, Domiciliary, Spinal Cord Injury, Blind Rehabilitation, Residential Rehabilitation, and Administration.

As seen in Table 11.1 above, the overall Condition Score for existing VHA space planned for renovation in CARES is 3.09, reflecting current compliance with recommended guidelines for space condition. Figures 11.3 and 11.4, later in this chapter, show the distribution by year of the necessary renovations to existing infrastructure. The majority of renovation costs appear in years 2004 through 2006, indicating the immediate need to improve the quality and functionality of VHA's infrastructure.

Vacant space was also given a Condition Score at each VHA facility. Vacant space that was converted to usable space to address workload gaps in VISN Market Plans had an even lower average Condition Score of 2.40 (Table 11.1). The conversion of this vacant space to meet workload demand will also result in the improvement of this space to acceptable levels.

Seismic Strengthening

The VA Secretary has made seismic strengthening a priority to assure the safety of our infrastructure in high-risk areas of the country. VHA has currently placed 63 sites on its the priority list. VISN responses in meeting this priority through the CARES process are shown in the table below.

**Table 11.2 Proposed Seismic Corrections (VISN Cost Estimates in Current Dollars)**

| VISN | Facility Name | Market Name | Cost |
|---|---|---|---|
| 8 | San Juan | Puerto Rico | $85,000,000 |
| 19 | Ft. Harrison | Montana | $15,600,000 |
| 20 | American Lake | Western Washington | $21,840,000 |
| 20 | Portland | South Cascades | $49,680,000 |
| 20 | Roseburg | South Cascades | $17,000,000 |
| 20 | White City * | South Cascades | Included in Bldg Replacement Costs |
| 20 | Seattle | Western Washington | $16,960,000 |
| 20 | Walla Walla * | Inland North | $5,700,000 |
| 21 | Fresno | South Valley | $12,000,000 |
| 21 | Palo Alto | South Coast | $91,925,000 |
| 21 | San Francisco | North Coast | $92,619,000 |
| 22 | Long Beach | California | $39,000,000 |
| 22 | San Diego | California | $49,100,000 |
| 22 | West LA | California | $64,400,000 |
| **Total** | | | **$560,824,000** |

** Being considered for realignment*

Parking Improvements

Although parking improvements were not directly included in the IBM Market Planning Template, many VISNs did submit initiatives under the Vacant Space category. Adequate parking is considered a necessary part of ensuring full access to health care services. VISN Market Plans have identified eight parking initiatives; five initiatives are planned for accomplishment through the enhanced use program and three through new construction.

## Meeting Capacity Demand for the Future

In addition to ensuring that VHA maintains an appropriate tertiary care environment and improves the safety and functionality of its existing infrastructure, CARES addresses infrastructure needs to meet projected future demand.

### Outpatient Capital Investments

The CARES planning model projected an overall increase in the demand for outpatient services (primary care, specialty care and mental health care), which resulted in a demand for additional space. The peak in this workload demand was usually managed through contracting for care or leasing space, both of which reduce the demand for in house space. Therefore, outpatient demand resulted in less renovation of existing space and conversion of vacant space as compared to inpatient demand. Figures 11.1 and 11.2 show the relationship between workload demand gaps and space demand gaps for outpatient care. By comparing the trends in both charts below, it can be seen that space gaps over a 20-year period followed workload projection trends.

**Figure 11.1 National Outpatient Workload Gaps in Clinic Stops (Includes Contract Care)**
**FY 2002 – FY2022**

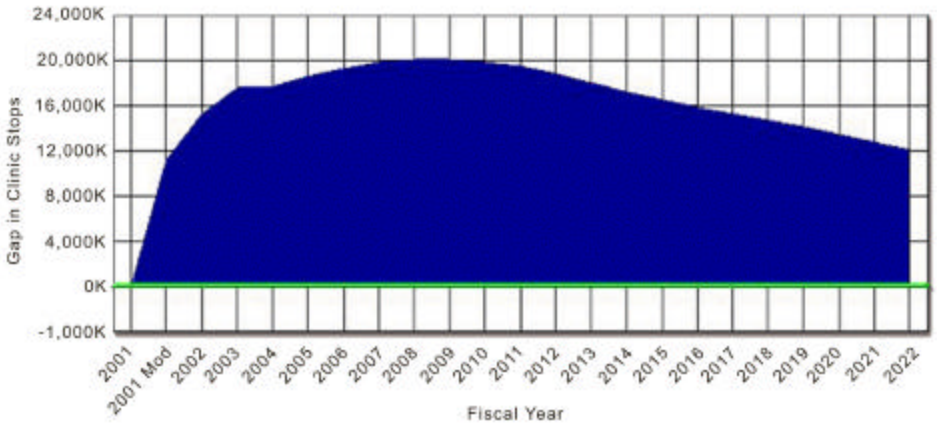
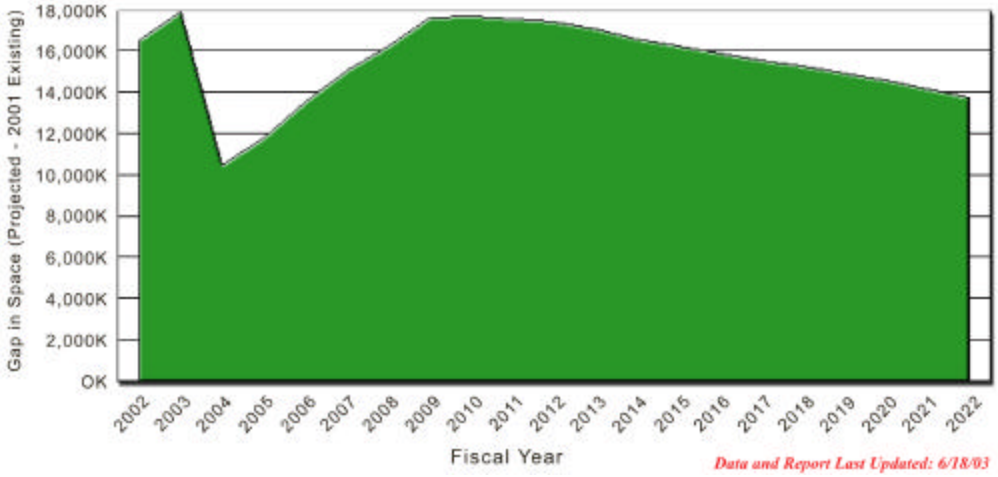
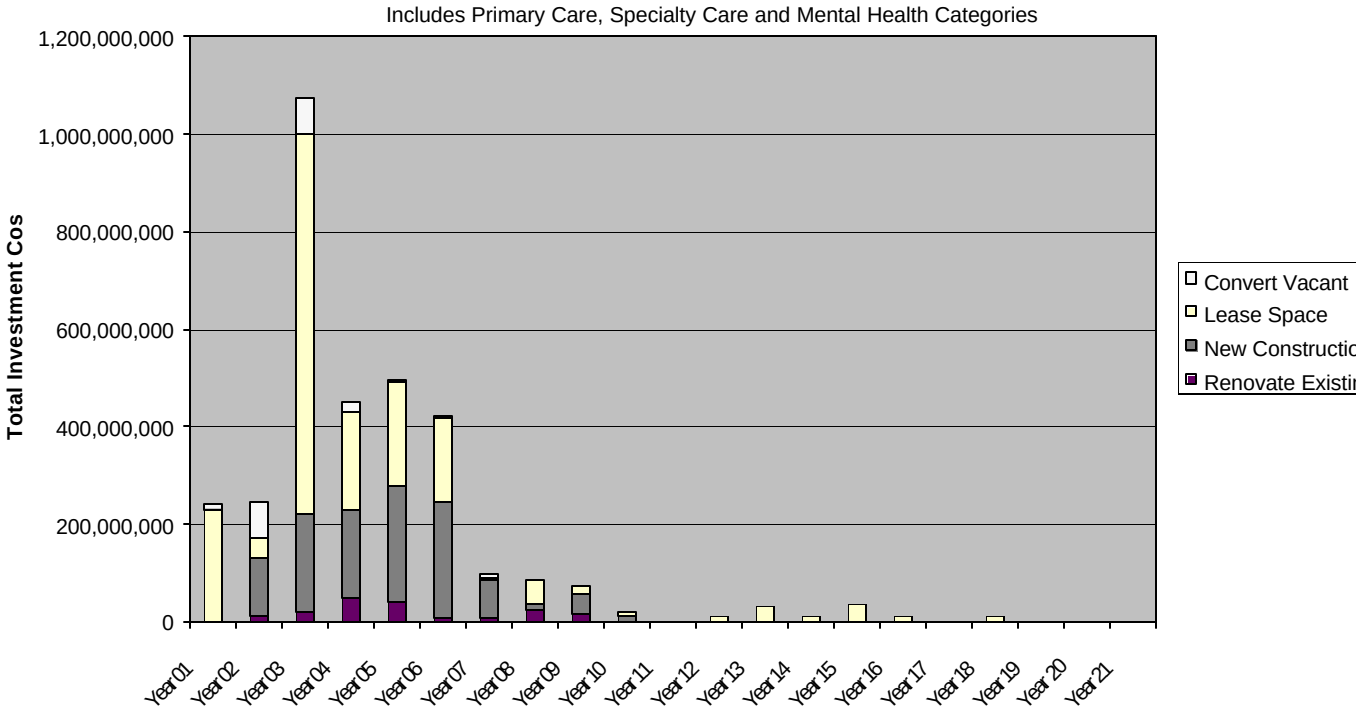



**Figure 11.2 National Outpatient Space Gaps in Square Feet**
**FY 2022 – FY 2022**
**Includes Outpatient Primary Care, Specialty Care and Mental Health**



The figure below show the capital investments proposed for outpatient care. Capital investments are proposed early in the twenty-year cycle reflecting the concern of VISNs to address the shortage of outpatient capacity that exists today. However, the use of leased space as a temporary solution to the peak workload years can be seen.

**Figure 11.3 National Inpatient Capital Investments in Current Dollars**

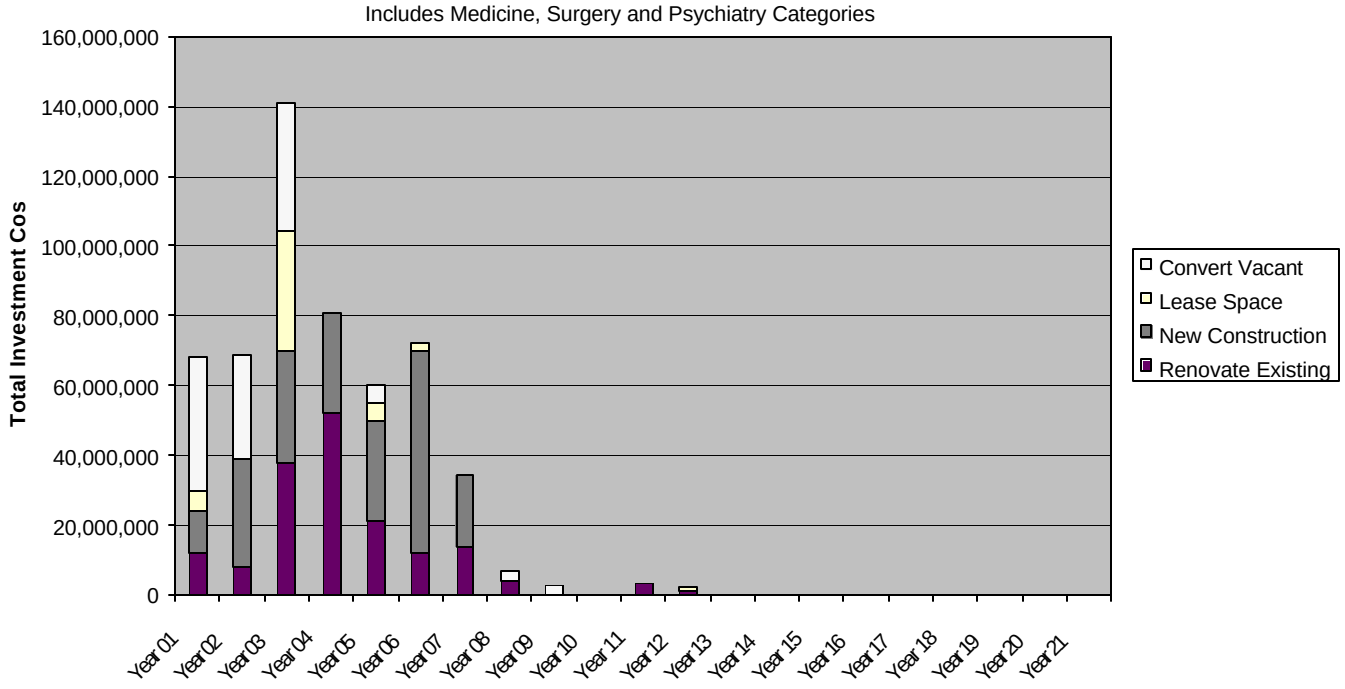


Inpatient Capital Investments

Current inpatient infrastructure is not adequately sized to meet the current demand for space. Additionally, the existing space did not meet patient privacy or other standards for environment of care. However, with the majority of the outpatient increases managed through contracts or in leased space, space within existing facilities can be renovated to accommodate the needs.

Figure 11.4 shows the capital investments proposed for inpatient care. New construction and conversion of vacant space make up a significantly larger portion of inpatient capital investments than it did for outpatient care. Outpatient care is more readily provided through Community Based Outpatient Clinics or other off-site leased facilities.

**Figure 11.4 National Inpatient Capital Investments in Current Dollars**



## Types of Capital Investments

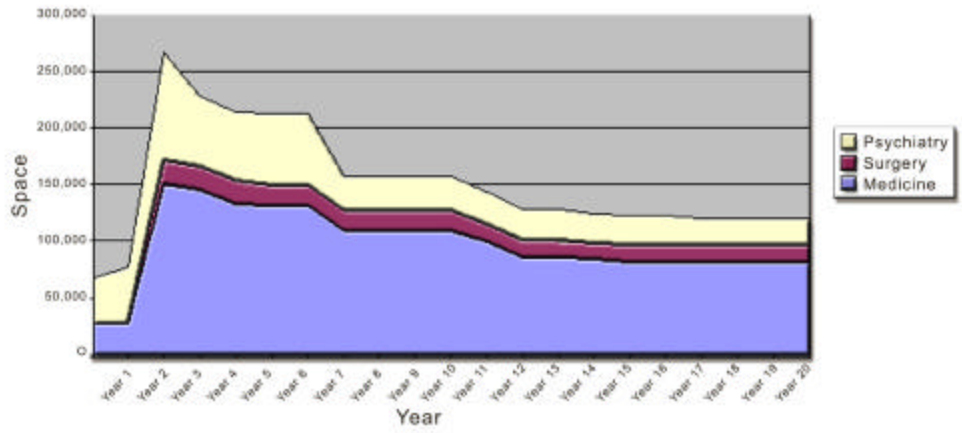
VA-Owned versus Leased Space

VA-owned space expansion was achieved through new construction or conversion of vacant space. 16,201,969 square feet of new construction and 4,121,335 square feet of vacant space conversion have been identified to address increasing workload capacity. While some of this expansion is needed to meet future workload demand, some space shortages were identified as currently existing.

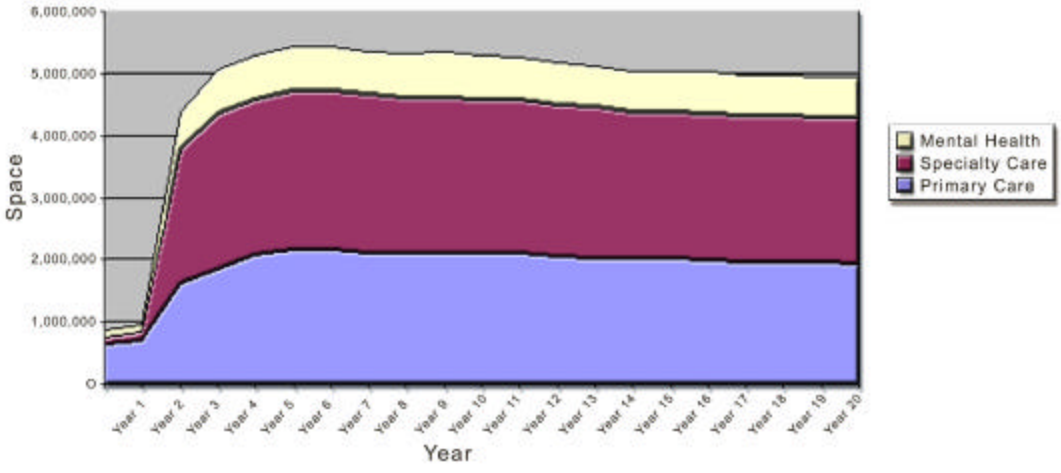
Leased space was utilized for peak demands in in-house workload. Leasing was a good temporary solution that eliminated the need for permanent VA owned space. The chart below shows the total proposed leased space by year. The second chart graphically depicts the square footage leased by year compared to the workload demand.

**Figure 11.5 Total Leased Space**

**Amount of Inpatient Leased Space in Square Feet**




**Amount of Outpatient Leased Space in Square Feet**



Enhanced Use Lease to Expand VHA Capacity

Enhanced use lease initiatives have been identified as an option for expanding capacity at a facility to meet future workload demand. A total of 792,200 square feet of enhanced use lease space is proposed nationally. Of this square footage, 54 percent represents expansion of clinical programs; 46 percent is identified for additional administration and research space.

The CARES Planning Process has encouraged the VA to manage excess land through collaborations with NCA, VBA, and enhanced use lease initiatives. Eleven VISNs identified sites in their CARES Market Plans for future cemeteries. Five thousand acres will be or have been allocated for NCA. More details on collaborative opportunities are available in Chapter 13.

Donated Space

Donated space was used only on a limited basis as a solution to expand space capacity. Donated space was also used for unusual space situations, such as extended clinic hours or renovation of existing space to improve capacity (Appendix K).